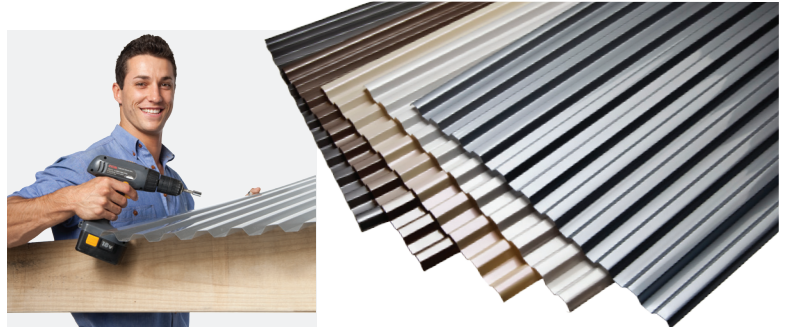


Laserlite[®] 3000

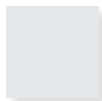
Product Data Sheet

Ultimate comfort



Technical details to help with your project design

Colour



platinum



ice



gun metal

Profile



Corrugated



Greca

Lengths available

1.8m, 2.4m, 3.0m, 3.6m, 4.2m 4.8m, 5.4m, 6.0m, 7.2m, 9.0m

Sheet width

Corrugated 840mm

Greca 810mm

Cover width

Corrugated 755mm

Greca 760mm

| Compliances | |
|--|--------------------|
| Design and Installation ¹ | AS 1562.3:2006 |
| Impact Resistance | AS/NZS 4257.6:1994 |
| 99.9% UV Resistant | ISO 9050:2003 |
| Resistance to Wind Pressures for Non Cyclone Regions | AS 4040.2:1992 |
| SAA Loading code Part 2 – Wind Loads | AS 1170.2:2002 |
| Cyclone Testing | TR440 |
| Heat & Smoke Release Rates | AS/NZS 3837:1998 |
| Sandbag Impact Test ² | AS 4040.4:2006 |
| Early Fire Hazard Test | AS 1530.3:1999 |
| Plastic Roof and Wall Cladding Material – Polycarbonate ³ | AS 4256.5:2006 |
| Diffuse Light Transmission | AS/NZS 4257.4:1994 |
| Colourfastness & Impact Resistance following UV exposure | AS/NZS 4257.7:1994 |
| Outdoor Durability | AS 1745.1:1989 |
| Dimensional Properties | AS/NZS 4257.1:1994 |

1. Installation must comply to the local building code. Local council approval may be required.

Laserlite[®] standard installation instructions apply as indicated in installation brochure.

2. Specific installation instructions apply, available from www.laserlite.com.au.

Laserlite® 3000

Product Data Sheet



UV Protection

Laserlite® 3000 Polycarbonate Roofing prevents the transmission of more than 99.9% of harmful UV radiation, measured to standard ISO 9050:2003. Its co-extruded UV barrier protects the sheet from UV degradation and discolouration. It remains stable under extreme climatic conditions (-30°C to +120°C).



Wind Load

Laserlite® 3000 Polycarbonate Roofing is suitable for use in high wind load areas. Corrugated and Greca profiles meet the requirements of AS 1170.2:2002 SAA Loading code Part 2 - Wind

Loads. Corrugated and Greca profiles also meet the requirements of TR440 (Guidelines for the testing and evaluation of products for cyclone prone areas) for fatigue loading, for the permissible stress design pressure of 3.0kPa, for a multiple span of 600mm end span and 900mm internal spans using 14 gauge hex head screws with cyclone assemblies. Deemed to comply to the Darwin Cyclone Area certification numbers M/133/1 and M/133/2 apply. Please visit our website for further details and specific installation instructions.



Fire Performance

Laserlite® 3000 Polycarbonate Roofing is self extinguishing, stops the spread of flame and also has excellent fire resistant properties. Therefore, this product complies with many fire related tests, including Heat and Smoke Release Rates (AS/NZS 3837:1998) and Early Fire Hazard Test (AS 1530.3-1999).



Advanced Weatherguard™ Technology Laserlite® 3000 features Advanced Weatherguard™ technology, a special protective material that is designed to

significantly extend the life and performance of the sheet as follows

- Protects the sheet from harmful UV rays up to 50% longer+
- Maintains sheet colour and clarity up to 50% longer +
- Resists 25% larger hail stones up to 40% longer+



Laserlite® 3000 features Comfort Cool™ technology, Offering:

- Up to 50% better heat reduction performance+
- Reduced glare for ultimate comfort

+ As compared to other polycarbonate corrugated sheet products.



Lifetime Warranty against loss of light transmission, that for the commercial life of the Products (subject to the terms below) they will not lose the ability to transmit light* *The loss of light transmission will not exceed 11% in the first 15 years (0.7% per year) from the date of manufacture and 1% per year thereafter as

long as the sheet lasts in its original installation for the life of the product to the original purchaser. (when tested in accordance with AS/NZS 4257.4-1994 Determination of diffuse light transmission).

10 year Warranty against Weather Breakage

Laserlite® 3000 corrugated sheet will resist damage from hail measuring up to 25mm for a period of 10 years limited to the original purchaser.

*Refer to full warranty terms & conditions at www.laserlite.com.au.

Product Liability Clause: This information and our technical advice whether verbal, in writing or by way of trials, are given in good faith but without warranty. Our advice does not release you from the obligation to verify the information provided in our safety data and technical information sheets and to test the products as to their suitability for the intended use and processes. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and therefore entirely your own responsibility. Our products are sold in accordance with the current version of our Terms and Conditions of Sale. The information contained in this brochure is to the best of our knowledge accurate, but all recommendations are made without any warranty whatsoever.

For further technical assistance please refer to your local Laserlite® distributor.
Contact details - www.laserlite.com.au.

| Technical Data | Value |
|---|---|
| Thermal Expansion | 2.1mm per 3m per 10°C |
| Thermal Conductivity | 0.17 W/m°C |
| Vicat softening point | 135°C (AS 1462) |
| Tensile Strength | 65 Mpa (AS 1145-1989) |
| Impact Strength | Exceeds 12 joules (AS4257.6-1994) Approx 250 times more than glass |
| Corrugation retention | No change for up to 2 hours at 100°C |
| 1Thermal Expansion – calculate from ambient temperature at time of installation. 2Impact resistance can decline with age | |

| | Test conditions | Units | Standards | Makrolon Resin Value |
|------------------------------------|-----------------|--------------------------|--------------|----------------------|
| Rheological Properties | | | | |
| C Melt Volume – Flow rate | 300°C; 1.2kg | cm ³ /(10min) | ISO 1133 | 6 |
| Melt Mass – Flow rate | 300°C; 1.2kg | g/(10min) | ISO 1133 | 6.5 |
| Moulding shrinkage Parallel/normal | | % | b.o ISO 2577 | 0.6-0.8 |

| | Test conditions | Units | Standards | Makrolon Resin Value |
|-----------------------------------|-----------------|-------------------|----------------|----------------------|
| Mechanical Properties | | | | |
| C Tensile modulus | 1mm/min | MPa | ISO527 | 2350 |
| C Yield Stress | 50mm/min | MPa | ISO527 | 65 |
| C Yield Strain | 50mm/min | % | ISO527-1;2 | 6.3 |
| C Nominal tensile strain at break | 50mm/min | % | ISO527 | >50 |
| C Stress at break | 50mm/min | MPa | ISO527-1;2 | 70 |
| C Strain at break | 50mm/min | % | b.o ISO527-1;2 | 120 |
| C Tensile Creep modulus | 1 hr | MPa | ISO 899-1 | 2200 |
| C Tensile Creep modulus | 1000h | MPa | ISO 899-1 | 1900 |
| C CHARPY impact strength | 23°C | KJ/M ² | ISO 179-1eU | NB |
| C CHARPY impact strength | -30°C | KJ/M ² | ISO 179-1eU | NB |
| C IZOD Notched impact strength | 23°C; 3mm | KJ/M ² | b.o ISO 180-4A | 95 |
| C IZOD Notched impact strength | -30°C; 3mm | KJ/M ² | b.o ISO 180-4A | 16C(P) |

| | Test conditions | Units | Standards | Makrolon Resin Value |
|--|-------------------------|---------------------|----------------|----------------------|
| Thermal Properties | | | | |
| C Glass transition temperature | 10°C/min | °C | ISO 11357-1,-2 | 148 |
| C Temperature of deflection under load | 1.80 MPa 0.45 MPa | °C | ISO 75-1;2 | 128 140 |
| C Vicat Softening temperature | 50 N; 50°C/h | °C | ISO 306 | 148 |
| C Co-efficient of linear thermal expansion | 23 to 55°C | 10 ⁻⁴ /K | ISO 11359-1;-2 | 0.65 |
| C Burning Behaviour UL 94 (UL Recognition) | 1.5mm 0.75mm 10mm | Class | UL94 | HB V-2 V-O(CL) |
| C Oxygen index | Procedure A | % | ISO 4589-2 | 27 |
| Glow wire test (GWF1) | 1.5mm 2.0mm 3.0mm | °C | IEC 695-2-12 | 850 850 930 |

| | Test conditions | Units | Standards | Makrolon Resin Value |
|------------------------------------|-----------------|------------------|-------------|----------------------|
| Electrical properties | | | | |
| C Relative permittivity | 100 Hz | | IEC 250 | 3.1 |
| C Relative permittivity | 1 MHz | | IEC 250 | 3.0 |
| C Dissipation factor | 100 Hz | 10 ⁻⁴ | IEC 60250 | 5 |
| C Dissipation factor | 1 MHz | 10 ⁻⁴ | IEC 60250 | 95 |
| C Volume resistivity | | Ohm. m | IEC 60093 | 1E14 |
| C Surface resistivity | | Ohm | IEC 60093 | 1E16 |
| C Electrical strength | 1mm | kV/mm | IEC 60243-1 | 34 |
| C Comparative tracking index (CTI) | Solution A | Rating | IEC 112 | 250 |

| | Test conditions | Units | Standards | Makrolon Resin Value |
|--|-----------------|--------------------|------------|----------------------|
| Other properties | | | | |
| C Water absorption (saturation value) | Water at 23°C | % | ISO 62 | 0.30 |
| C Water absorption (equilibrium value) | 23°C / 50% r.h | % | ISO 62 | 0.12 |
| C Density | | Kg/M ³ | ISO 1183-1 | 1200 |
| C Glass fibre content | | % | ISO 3451-1 | - |
| Material Specific properties | | | | |
| C Viscosity number | | cm ³ /g | ISO 1628-1 | 64 |
| Refraction index | Procedure A | - | ISO 489 | 1.587 |

| | Corrugated | Greca |
|-----------------------------------|------------|-------|
| Nominal Overall Width (mm) | 840 | 810 |
| Nominal Cover width (mm) | 755 | 760 |
| Nominal thickness (mm) | 0.8 | 0.8 |
| Nominal pitch (mm) | 75.5 | 76.0 |
| Nominal depth of corrugation (mm) | 17.5 | 17.5 |
| Kg per Lineal metre | 0.92 | 0.93 |
| Kg per m2 | 1.10 | 1.13 |

| | Diffuse Light transmission AS 4257.4 | Shading Co-efficient Ratio* | Solar Heat Gain Co-efficient (SHGC) | U Value | UV Transmittance |
|----------|--------------------------------------|-----------------------------|-------------------------------------|---------|------------------|
| Platinum | 18% | 0.31 | 0.27 | 7.2 | <0.04 |
| Ice | 47% | 0.37 | 0.32 | 7.19 | <0.04 |
| Gunmetal | 16% | 0.34 | 0.29 | 7.2 | <0.04 |

C= These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO10350 (Plastics acquisition and presentation of comparable single=Point data, 1993) NB= Non Break

* based on the warming effect of the sun's rays through a sheet vs 3mm float glass (300-2500nm)

